

## 8. NOTES ON THE REPTILES AND FISHES OF THE SAHARA.

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UROMASTIX SPINIPES, "*Ed D'Abb*," Arab.

Long since described by Freytag, "*Lacerta Libyca seu Arabica*, genus distinctiore corpore et cauda, eademque esculenta, et ob carnem delicatiorem expetita."

It also attracted the notice of Leo Africanus, who gives a long and somewhat tedious account of its habits (vol. i. p. 307), mingling some Arab fables with his own observations.

It is found throughout the whole of the Algerian and Tunisian Sahara, but is most common in the south, living either in holes of the rocks, or in burrows of its own in the sand. I have seen specimens measuring 2 feet in length. Its colour during life is grass-green (of a darker hue in the young, but very bright in the adult), spotted with brown, and paler under the belly. When provoked and irritated the adult's bright hue becomes rapidly darker. It is a very inoffensive creature, and moves very slowly and awkwardly, with the gait attributed to the crocodile, and turns its head from side to side with great caution as it walks. Its tail forms its weapon of defence, and it uses it with effect on any pursuer. It seldom bites, but when it does, nothing will induce it to relinquish its grasp. It is almost impossible to force its mouth open. It never drinks. The Arabs believe that water is certain death to it.

It is frequently kept in confinement for fattening among the Beni M'zab, who consider it very good eating. I found it really very palatable when stewed, not unlike tender chicken. I kept several for some time, and one in particular, which became familiar and showed attachment to those whom it recognized. I also saw one kept in an artillery barrack in Algiers, who recognized his owner's voice, and would come to him, climb up his body, and nestle on his shoulder. It appears to be neither strictly nocturnal nor diurnal in its habits, but mine always basked in the morning sun, and retired to sleep in the shade about noon. I have often watched my special pet asleep both by day and night, with his nose and fore feet resting against the wall, his hind-feet hanging down, and the tail stiffened, supporting the body, which was nearly perpendicular to the floor.

The D'Abb has no cry, and, as far as I could observe, lives on friendly terms with individuals of the same species. The Arabs declare that it is a match for the Horned Viper (*Cerastes*), which often enters its holes, but soon has its vertebræ dislocated by the vigorous blows of the D'Abb's prickly tail.

My specimen fed generally on insects, and was an adept at catching flies, but it would also eat several plants, and among these *Peganum harmala*, and *Tragopogon crocifolius*, which seemed its favourite vegetable.

SCINCUS OFFICINALIS, "*H'out el ber*," "Land-fish," Arab. "*Cherchiman*," "*Choromcham*," Berber, are the collective names.

The male is distinguished in Arabia as "*Zanarout*," the female as

"*Zelgaga*." The male is decidedly larger than the female, and has its shoulders and sides covered with blackish spots, while the female is of a uniform sand colour. I never observed it among rocks or elsewhere than in the sands of the Sahara, in some parts of which it literally swarms. It hybernates under ground through the winter, when it can easily be dug out of its holes. In summer it may constantly be seen basking in the sun, and attracting attention by the glittering of its bright scales. I have also frequently observed it by moonlight. When alarmed, it wriggles for a moment and disappears beneath the sand with a magical rapidity.

Its food appears to consist exclusively of beetles, ants, and other insects, and the Arabs state that it often devours even scorpions.

It is a very favourite article both of diet and medicine, and in many of the oases, as Waregla and Touat, its capture is the occupation of a considerable portion of the population. Fried fresh with *ghee*, it is by no means an unsavoury dish, as I can vouch from experience, but I cannot say as much for the paste into which it is usually made up. The Arabs skin and dry it in large quantities, then pound it very fine in a mortar, after which it is mixed with a mass of stoned dates, and compressed very tightly in skin-bags, when it keeps fresh for months, and is a not unimportant article of commerce with the Touat Caravans, and with the Chambâa of Metlili.

#### CHAMELEO VULGARIS.

Occurs generally among the Tamarisk trees of the Weds, and is more abundant in the north than in the south of the Sahara. It may often be observed hanging motionless by its tail from a topmost bough. I frequently kept them alive for some time, when they fed themselves on mosquitoes; but the cold of the Tell proved fatal, sooner or later, to all my specimens.

LACERTA OCELLATA, "*H' Ardoun and Boulién*," Arabic.

In habits and resorts like our common Lizard. I have watched it climb trees and attack the nest of *Aëdon galactodes*.

#### SEPS TRIDACTYLUS.

Does not occur in the sand, but only among vegetation. I never observed it take refuge in holes or under ground, but only among the roots of grass or rushes. It moves with great rapidity, twisting itself more after the fashion of a serpent than a lizard. Its bite is perfectly harmless.

#### TARENTOLA MAURITANICA.

Resorts chiefly to the base of the cliffs in the weds and gorges of the M'zab. Though not uncommon, it is not easy to detect, covered as it usually is with the sand and *débris* of the limestone.

#### HALIGENES TRISTRAMI, Günther.

This fish is found in great abundance in the salt lake near

Tuggurt, and in the deep ditch which surrounds the city. The lake and ditch abound in small weeds, round the stems of which great numbers of a species of *Melania* and *Paludina nana* (?) cluster. This lake is the only one with which I am acquainted in the Eastern Sahara (except that near Waregla) that is never dry in summer. It is intensely saline, and the whole surface of the sand, for some miles round, is covered with a delicate incrustation of salt, and glitters like a vast sheet of water in the distance. As it is considerably lower than the Mediterranean, and probably the lowest depression in the whole Sahara, may not this fish be the last lingering living relic of those forms which must have swarmed in these seas during the Tertiary epoch, and before the great and gradual elevation of Northern Africa drained this ocean into the Mediterranean by the Gulf of Cades? It seems probable that this gulf between Tunis and Tripoli formed the outlet, since on this coast, for a space of near 200 miles, there is no high land between the Mediterranean and the Desert,—merely long ranges of drifting sandholes about 300 or 400 feet high, —while between Tuggurt and Souf the level of the land is calculated to be 70 feet below that of the sea.

As Lacépède has mentioned a fish of the same family, "*Sparus desfontaini*," in the springs of Cafsa, or Gafsa, not 200 miles from Tuggurt, we may reasonably anticipate that a more persevering search than I had time to make will reveal some similar inhabitant of the Waregla lake.

The following list of additions to the Society's Menagerie by presentation and purchase during the month of November was read:—

1 Entellus Monkey .....	<i>Presbytes entellus</i> .....	India.
30 Roach.....	<i>Leuciscus rutilus</i> .....	England.
5 Perch .....	<i>Perca fluviatilis</i> .....	England.
3 Bleak .....	<i>Leuciscus alburnus</i> .....	England.
2 Pike .....	<i>Esox lucius</i> .....	England.
1 Egyptian Goose.....	<i>Chenalopex ægyptiacus</i> .....	S. Africa.
1 Ocelot .....	<i>Felis pardalis?</i> .....	Guiana.
1 Malbrook Monkey.....	<i>Cercopithecus cynosurus</i> .....	W. Africa.
1 Coral Snake .....	<i>Oxyrrhopus trigeminus</i> .....	Pernambuco.
Pectens .....	<i>Pecten varius</i> .....	Tenby.
Lucernariæ.....	<i>Lucernaria auricula</i> .....	Tenby.
1 Striped Hyena .....	<i>Hyæna striata</i> .....	Egypt.
1 Roe Deer .....	<i>Cervus capreolus</i> .....	England.
2 Bean Geese .....	<i>Anser segetum</i> .....	England.
2 Barnacle Geese .....	<i>Bernicla leucopsis</i> .....	England.
15 Carolina Ducks .....	<i>Aix sponsa</i> .....	N. America.
1 American Bear .....	<i>Ursus americanus</i> .....	N. America.